GF54.30-P-3028GH	Displaying coolant level, function	28.6.99

MODEL 163 as of 1.3.99

Function prerequisite
Engine: ON

Function
If the coolant level drops below the minimum mark the low ECL indicator lamp (A1p11) is illuminated.

To record the coolant level the instrument cluster (A1) is connected direct to the **coolant level indicator electronic switch (S41)** via two cables. The **coolant level indicator electronic switch (S41)** consists of two electrodes.

- D If the **level is correct** both electrodes are immersed in the coolant. The coolant serves as a dielectric between the electrodes.
- D If the coolant level is below the minimum mark the electrodes of the sensor are no longer immersed in the coolant. There is only air between the electrodes as a dielectric.

Evaluation
The instrument cluster (A1) sends test pulses to the sensor for a period of one millisecond. These pulses are deformed differently depending on the dielectric (air or coolant).
The instrument cluster (A1) evaluates the pulse shape and, if the coolant level is below the minimum (electrodes are completely in air), actuates the low ECL indicator lamp (A1p11) after a delay of **approx. 60 seconds**.

i The delay serves to prevent the indicator lamp flickering due to the coolant moving from side to side on corners or off-road.

Diagnosis
Diagnosis is carried out, as described in the Diagnosis Manual, via the simulation of the **coolant level indicator electronic switch (S41)** by a resistance.

	Coolant level switch, location/task/design/function		GF54.30-P-4103GH

